CHICAGO ARTCC CUSTOMER FORUM

United Airlines Perspective

Presented by Tim Matuszewski
Manager of Dispatch Air Traffic Operations

Wednesday February 27, 2008

UNITED

TODAY'S AGENDA

- ORD Operating Philosophy (advocating for/against a GDP)
- ORD AAR
- New Flight Planning System
- Capping and Tunneling

UNITED

ORD OPERATIONS

- ORD is United's top hub with about 1200 daily operations.
    - UAL 48%, UAX 52%
- 3,500 flights daily, ORD is 35% of United's operation
- 67% of United customers at ORD are connecting passengers
    - ORD is our top hub for international operations/passengers
- Impact of delays on connecting passengers can be mitigated with a solid, pre-coordinated plan.

UNITED

ORD OPERATING PHILOSOPHY

- GDP preferred over extended Ground Stop.
  - GDP offers opportunity to manage delays
  - GDP with low rates often preferred over Ground stops

- Ground Stops result in greater imbalance of delays
  - GS often limited scope (assessed against 1st tier)
    - 1st Tier flights often absorb disproportionate share of delay
  - 1st Tier often receive additional ESP delay

UNITED

ORD OPERATING PHILOSOPHY

- A GDP can have a similar impact as GS
  - Wait n see vs. Early deployment
    - Early deployment offers more equitable delays internal and external

- Deploy early if high degree of confidence in timing and occurrence
  - Use variable rates to accommodate any issues with timing
  - Contingency plan to release 1st Tier to generate demand

- Wait n see if low confidence in occurrence or timing
  - Develop trigger

UNITED

GDP DEPLOYMENT: EARLY VS WAIT

- ORD GDP 1800Z-0259Z 72 rate

- 15Z Deploy
  - 80% eligible flights captured, average delay 66 minutes

- 17Z Deploy
  - 65% eligible flights captured, average delay 99 minutes

UNITED

ORD AAR

- In general, ORD AAR seems lower today than in recent past
  - Began to notice this in late fall 2006
  - Noticed again in late fall 2007 to current
    - Also noticing difficulty in delivering the advertised rate
      - Though not always accompanied by air holds
  - We recognize fleet mix as an issue

- Some Examples
  - Parallel runway (28/27L) VFR rate was 80, now 76 or even 72.
  - More sensitive to “compression on final”

UNITED

ORD AAR

- The Impact (GDP 18Z-0259Z, ALL center + CYZ, 671 flights, issued at 14Z)
  - 80 rate = :31.6 average delay, :21,226 total delay
  - 76 rate = :47.8 average delay, :32,106 total delay
  - 72 rate = :66.9 average delay, :44,914 total delay
  - 68 rate = :85.6 average delay, :57,407 total delay
  - 64 rate = :106.2 average delay, :71,249 total delay
  - 60 rate = :128.4 average delay, :86,136 total delay
  - 56 rate = :151.0 average delay, :101,315 total delay

ORD AAR

- And, there is no stability if unable to deliver the advertised rate

- 80 rate GDP at 1400Z = 671 flights :31.6 average delay, :21,226 total delay
- 76 rate GDP at 1800Z = 501 flights :67.2 average delay, :33,658 total delay

UNITED

ORD AAR

- What we have learned
  - We understand current spacing requirements date back to 1947
  - Previous higher rates were available due to ATC recognizing some compression imminent but not a safety issue
  - In late 2006 FAA began monitoring spacing due to increased runway incursions. This limited/eliminated compression allowance
  - Increased RJ operations have created a fleet mix issue forcing increased spacing and lower AAR.

ORD AAR

- What we are asking
  - Review the current monitoring program. Is it too restrictive?
    - Is compression as big an issue as this program would seem to claim or are the former practices still safe?
    - Has traffic volume increased to point where the current system must require increased spacing?
    - Can we develop a plan which encourages efficiency to the extent safety is not compromised? (The current procedure does not).

WE ARE NOT SEEKING A PLAN THAT COMPROMISES SAFETY!

UNITED

NEW FLIGHT PLANNING SYSTEM

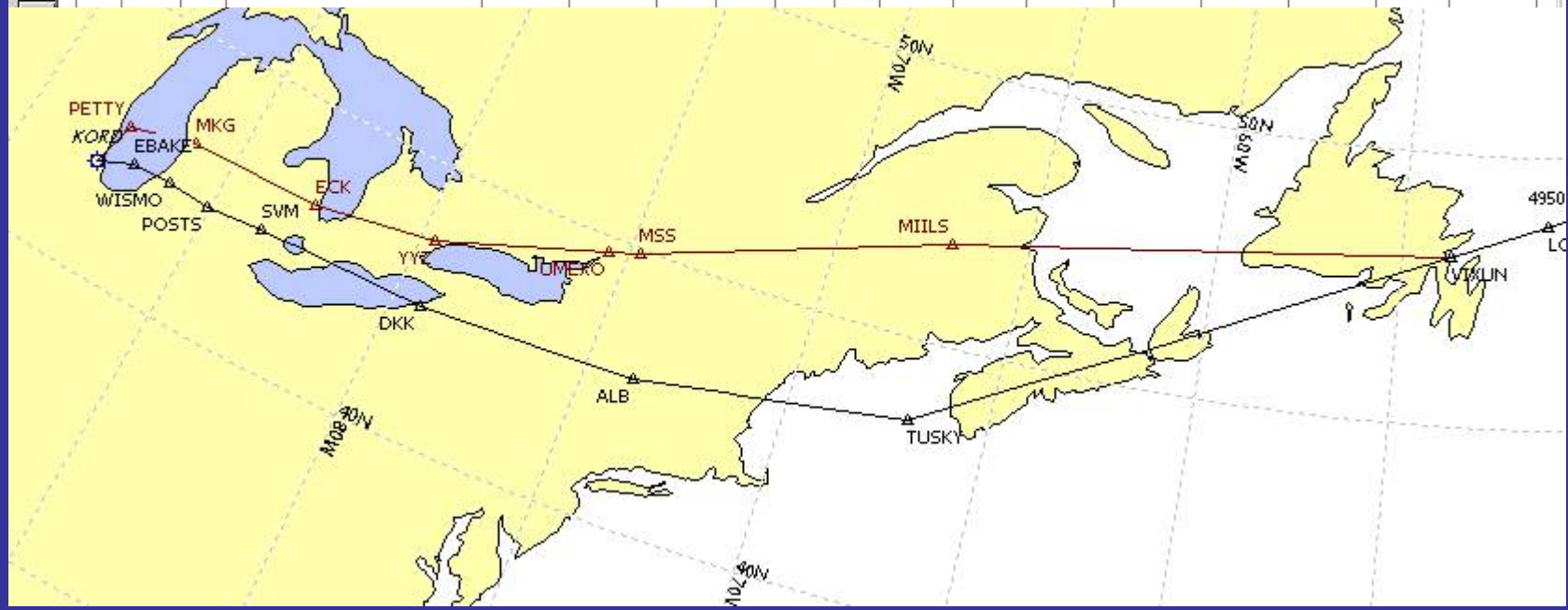
- FWZ (no official name yet) coming Online in January 2009 (tentative)

- Big leap in technology (we're leaving the stone age!)
  - Flexible route selection
  - Flexible altitude selection
  - Full cost analysis for each route (including over-fly charges)
    - Likely to see routes not seen before
    - Runway requirement may not match departure gate

UNITED

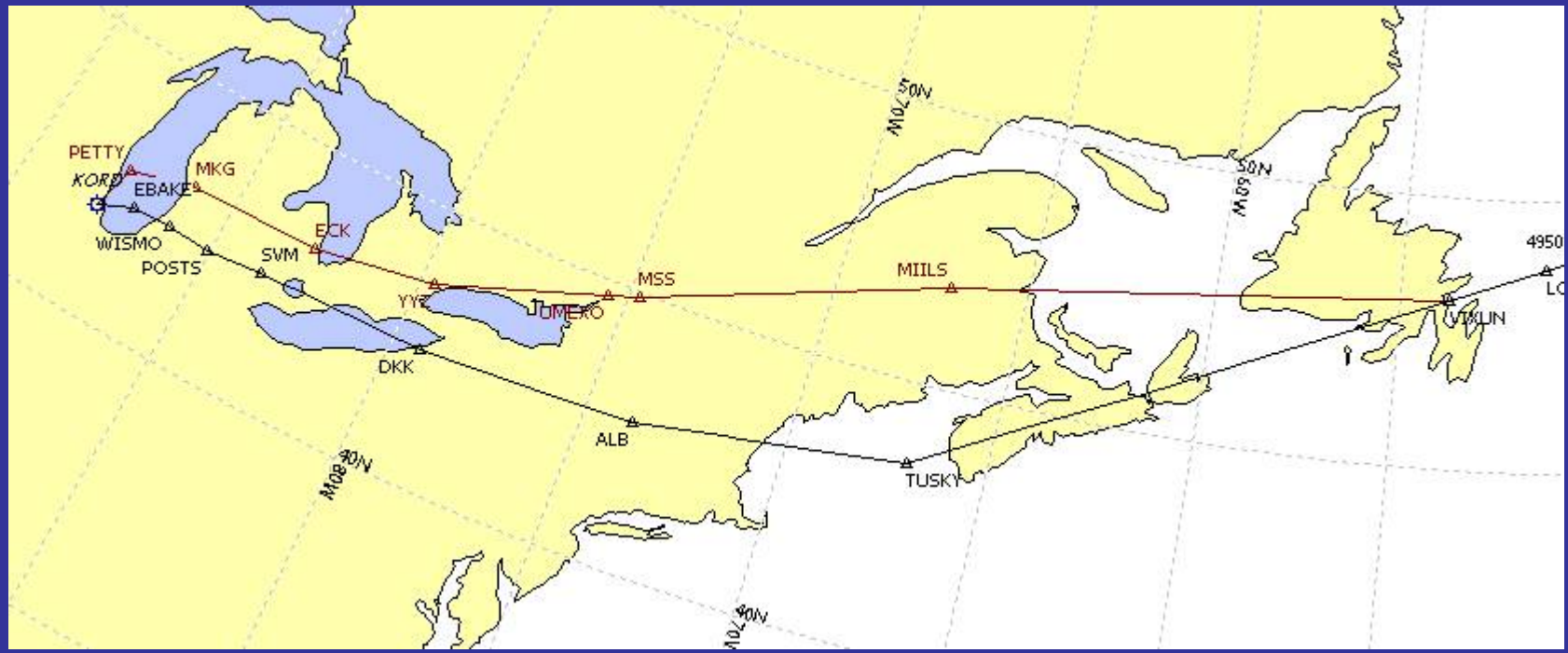
NEW FLIGHT PLANNING SYSTEM

		Vr	To	Rt	Via	Typ	Reg	Cl	Altn	Dist	AFL	TripF	Time	PrfCost	OvrCost	DlyCost	TotCost	MinB	Stat
1	*	1	EGLL	01	OPTIMIZED-OTS ON	777-A	777UA	21	EGKK	3659	350	95630	6.41	0	0	0	0	11748	MRWUC
2		6	EGLL	Z1	MCT AWY NAT CI21 O	777-A	777UA	21	EGKK	3630	348	96077	6.43	214	315	0	529	10625	MRWUC



New FP system selects seemingly longer route over EBAKE. Performance (time, fuel) is $214 better, and it avoids $315 over fly cost. Total savings, $529.

NEW FLIGHT PLANNING SYSTEM



The Problem: Runway use/departure gate compatibility. Recent event where flight needed 32R. Flight was issue re-route over MKG negating all savings.

CAPPING and TUNNELING PLAN

- Developed in 2007
    - Many of the stakeholders are in the room today

- Plan involved capping flights destined to airports within 500nm of ORD FL230 or lower
    - PLN advisory sent early (customers warned and were ready)
    - FEA issued to define affected flights
    - RQD advisory replaced PLN when conditions dictated.

UNITED

CAPPING and TUNNELING PLAN

- The results – It Worked!
  - UAL realized 15% reduction in taxi out time during en route TS events
    - Some savings attributable to Canada escape – thanks ZMP!
    - Some saving attributable to greater focus – thanks all!

UNITED

CLOSING

We've tried to offer a look at delays and impacts from the customer perspective. Some of this may have come across as complaining but that was not the intent. We recognize the effort you make everyday (here are just a few things we see)

- Collaboration on conference calls (giving customers a louder voice)
- On-the-fly runway changes to maximize AAR
- Complexities associated with crossing runways and LAHSO rules
- Innovative strategies (such as the capping and tunneling)
- Support from the surrounding ATC facilities to assist with traffic flows

UNITED

THANK YOU

On behalf of United Airlines…….

Thank You!